SMOKE SIGNAL BROADCASTING

6304 Yucca • Hollywood, CA 90028
(213) 462-5652

COMPUTER PRODUCTS CATALOG

What's in store for the computer of tomorrow. Is in stock at Smoke Signal today.

INTRODUCTION

Smoke Signal Broadcasting was founded in 1973 to provide engineering and consulting services to radio and television stations. While investigating microcompressors in 1976, it became apparent that the 6800 microprocessor was superior to the 8080 microprocessor. It also was apparent that there were very few products available which used the 6800. A decision was made then to expand into the microcomputer market and to develop a product line around the 6800 microprocessor.

The choice of the 6800 has proven to be a good one. While many other microprocessors have been introduced as alternatives to the outmoded 8080 products, only the 6800 has been widely accepted and supported. The worlds largest automobile manufacturer has chosen a custom variation of the 6800 as the processor to be used in future automobile production. This will insure that support for the 6800 and future derivatives of the 6800 will continue. By selecting products from this catalog, you are choosing products that are designed for the microprocessor that is the most reliable, easiest to use and for which enhancements are planned that will keep your microcomputer system up-to-date for years to come.

INDEX

DOMESTIC COMPUTER DEALERS

ARIZONA
Personal Computer Place
1840 W. Southern
Mesa, AZ 85202
(602) 833-8949

CALIFORNIA
A-Vidd Electronics
2210 Bellflower Blvd.
Long Beach, CA 90815
(213) 598-0444

Byte Shop No. 2
3400 El Camino
Santa Clara, CA 95051
(408) 249-4221

Byte Shop No. 3
2626 Union Ave
San Jose, CA 95124
(408) 377-4685

Computerland
16919 A Hawthorne Blvd.
Lawndale, CA 90260
(213) 371-4010

Computerware
830 First Street
Encinitas, CA 92024
(714) 436-3512

Westlake TV & Stereo
1175 11th Street
Lakeport, CA 95453
(707) 263-6797

COLORADO
Bitronics
208 E. Olive
Lamar, CO 81052
(313) 336-7956

Byte Shop
3464 S. Acoma
Englewood, CO 80110
(303) 761-6232

FLORIDA
Byte Shop
7825 Bird Road
Miami, FL 33155
(305) 264-2983

Communications Control Systems
227 Edison Drive
Pensacola, FL 32505
(904) 455-9714

Data Entry Engineering
1810 N. Orange Ave
Orlando, FL 32804
(305) 896-4322

Microcomputer Systems, Inc.
144 S. Dale Mabry Highway
Tampa, FL 33609
(813) 879-4301

ILLINOIS
AAA Chicago Computer Center
3007 Waveland
Chicago, IL 60618
(312) 539-5833

Bits N Bytes
2928 W. 147th Street
Posen, IL 60469
(312) 389-7112

INDIANA
Computer Unlimited
7724 E. 89th Street
Indianapolis, IN 46250
(317) 849-6505

INDIANA (Cont.)
Syscon International
1239 S. Bend Ave
South Bend, IN 46617
(219) 287-5916

The Country Computer Store
5430 Prophet's Road
W. Lafayette, IN 47906
(317) 567-2808

LOUISIANA
Baxter T.V.
7964 Jefferson
Baton Rouge, LA 70809
(504) 924-5303

Computer Electronics
1986 Beaumont
Baton Rouge, LA 70806
(504) 926-6169

Freeman Electronics
1100 Ridge Ave
W. Monroe, LA 71291
(318) 388-2312

MARYLAND
Computer Workshop
1776 E. Jefferson
Rockville, MD 20852
(301) 468-0463

MASSACHUSETTS
American Used Computers
712 Beacon Street
Boston, MA 02215
(617) 261-1100

MINNESOTA
Computer Depot
3515 W. 70th Street
Minneapolis, MN 55435
(612) 927-5601

MISSOURI
Computer Workshop of Kansas City
6 East Street
Parkville, MO 64152
(816) 741-5055

NEVADA
Johnson T.V.
2607 E. Charlston
Las Vegas, NV 89104
(702) 384-3354

NEW JERSEY
Business Computer Services
510 Nectar Ave
Pinehurst, NJ 08201
(605) 652-1448

NEW YORK
Computer Mart of New York
118 Madison Ave
New York, NY 10016
(212) 686-7923

Microcomputer Workshop
234 Tennyson Terrace
Williamsville, NY 14221
(716) 634-6844

NORTH CAROLINA
Byte Shop Of Raleigh
1213 Hillsborough
Raleigh, NC 27605
(919) 833-0210

Solid State Electronics
12007 Swanee Lane
Charlotte, NC 28270

OREGON
Stephen Moe & Co.
3698 Franklin Blvd.
Eugene, OR 97403
(503) 726-7613

PENNSYLVANIA
The Electronics Place
7250 McKnight Rd.
Pittsburgh, PA 15237
(412) 367-2900

Marketline Systems
2337 Philmont Ave
Huntington Valley, PA 19006
(215) 947-6670

SOUTH CAROLINA
Byte Shop Of Columbia
2018 Green Street
Columbia, SC 29205
(803) 771-7824

TEXAS
Austin Science Assoc., Inc.
5902 W. Bee Caves
Austin, TX 78746
(512) 327-1297

Mr. John Christensen
113 Ridge Trail
San Antonio, TX 78232
(512) 494-7972

Comp Center 2
900 Old Koenig Lane
Austin, TX 78756
(512) 453-5129

Computer Port
926 N. Collins
Arlington, TX 76011
(817) 469-1502

Computer Shop
6812 San Pedro
San Antonio, TX 78216
(512) 828-0553

KA Computer Store
1220 Majesty Drive
Dallas, TX 75247
(214) 634-7870

Micro Data Systems
Route No. 1, P.O. Box 807
Kempner, TX 76539
(817) 547-7233

Micro World
1302 S. Nebraska
San Juan, TX 78589
(512) 787-8454

Micro Computer Shoppe
5301 Everheart Space H
Corpus Christi, TX 78411
(512) 855-4516

Tandy Computers
700 1 Tandy Center
Fort Worth, TX 76102
(817) 390-3137

VIRGINIA
Computer Systems Store
1984 Chain Bridge Rd
McLean, VA 22101
(703) 821-8333

WASHINGTON DC
Technology Applications Inc.
4816 MacArthur Blvd. N.W.
Washington DC 20007
(301) 840-1480

WISCONSIN
The Battery Shop
2241 S. 38th St.
Milwaukee, WI 53215
(414) 384-5410

Milwaukee Computer Store
6917 W. N. Ave
Milwaukee, WI 53213
(414) 259-9140

FOREIGN COMPUTER DEALERS

AUSTRALIA
Computer Workshop
4 Margaret Street
Beulih Park, S. Australia
332-6286

Dynetics Pty. Ltd.
425 Pennant Hills Rd.
Pennant Hills
NSW 2120 Australia
848-9055

BELGIUM
Computer Resources
Chausee de Charlerio, 80
1060 Brussels-Belgium
538-90-93

CANADA
Ortho Computers
12411 Stony Plain Rd.
Edmonton, Alberta, Canada 5TN 3N3
(403) 488-2921

SDS Tech Devices Ltd.
1138 Main Street
Winnipeg, Manitoba R2W 3F3, Canada
(204) 589-4803

ENGLAND
Strumech Engineering Ltd.
Portland House-Coppice Side
Brownhills, WAL SALL 7EX England
433-4321

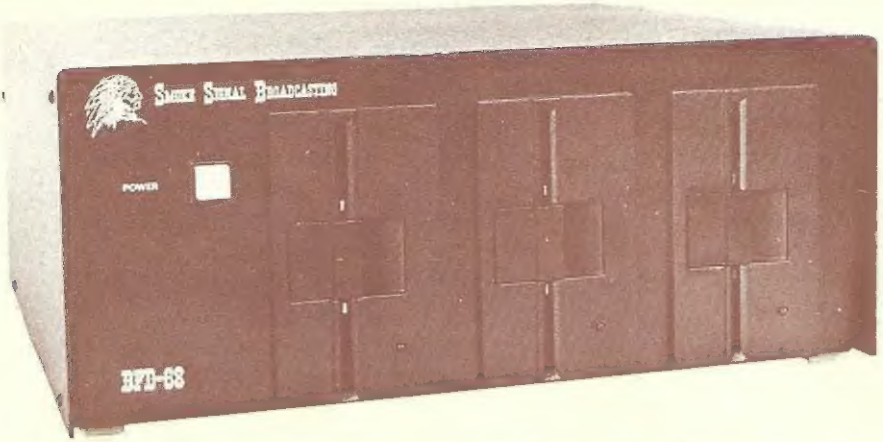
Haywood Electronics Assoc.
11 Station Approach
Northwood, Middlesex England
428-9831

GERMANY
ABC Computer Shop GMBH
Schellingstr. 33, W. Germany
8000 Munchen 40
089/28-28-92

SINGAPORE
Tan Accounting
358 Blk. 114
Kim Tian Rd. Singapore-3

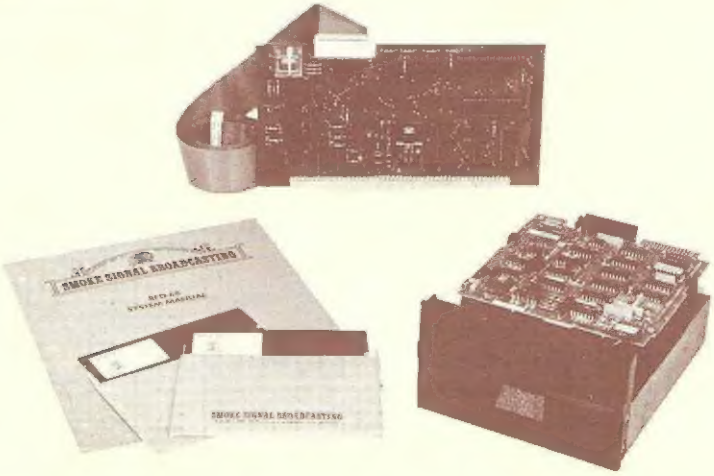
SWITZERLAND
Clausen Electronics
Case Postale Clusen
1950 Sion Ave. de la Gare 12
Switzerland

BFD-68



The BFD—68 is a mini-floppy disk system with hardware and software specifically designed for use in 6800 micro-computer systems using the SS—50 bus structure. The controller for the BFD—68 plugs into a regular 50 pin position on an SS—50 motherboard. Each drive is capable of storing approximately 80K bytes of data. The cabinet and power supply for the BFD—68 are capable of accomodating up to 3 drives and additional drives can be added to a single drive system at any time. The BFD—68 is available in a dual drive version, the BFD—68—2, and a triple drive system, the BFD—68—3.

ABFD-68



The ABFD—68 is exactly the same as the BFD—68 except that the cabinet and power supply are not included. All the software that is included with the BFD—68 is also included with the ABFD—68. Each of the disk drives used with the ABFD—68 requires 12 volts at 1.1 amps average with a surge capability of 1.7 amps and 5 volts at 0.5 amps.

BFD-68 SOFTWARE

The BFD–68 is supplied with Smoke Signal Broadcastings' Disk Operating System, DOS–68 and Disk File Basic, DFB–68. DOS–68 is conveniently loaded into 4K of memory at $7000 (optionally at $D000) by a boot routine resident in PROM on the controller board.

DOS–68 is a powerful disk operating system giving the user the ability to easily create or modify the operating system commands to suit individual needs. This also allows newly developed software to be installed in the users system.

DOS–68 is supplied with the following commands:

BASIC	Begins execution of Smoke Signal Broadcastings' file-handling disk basic.
LIST	List the names of files on a disk and beginning and ending locations of the file on the disk.
SAVE	Save memory into a file.
GET	Load a file into memory.
FIND	Lists the memory areas used and starting address of a binary file.
RUN	Load a program file into memory and begin execution.
DELETE	Remove a file from the disk (requires no disk repacking).
RENAME	Change the name of a file.
APPEND	Merges two files together to form one.
PRINT	Print the contents of a file on the terminal.
COPY	Allows individual files to be copied from disk to disk or all files on one disk to be copied to another disk.
SDC	Allows files to be copied from disk to disk on a single disk drive system.
LINK	Sets up the information to boot in the disk operating system (or other application program).
EXIT	Exit to resident ROM monitor.

DOS–68 allows access to the disk file management subsystem thereby making it easy for the programmer using assembly language to perform operations on disk files. Routines are available for such functions as: creating or deleting sequential or random files, reading or writing to files, renaming files, appending files, and reading the disk directory. Through the use of the file management system, the user can easily access as many or as few files as desired at any time.

DFB-68
SOFTWARE (CONT.)

Smoke Signal Broadcasting's Disk File Basic, DFB—68, allows the user not only to save and load basic files to disk, but also to read from and write to data files without having to program in assembly language. DFB—68 contains the following commands:

ABS (X)	LEFT$ (X$, N)	RETURN
APPEND 'FILENAME'	LEN (X$)	RIGHT$ (X$, N)
ASC (X)	LET X=N	RND
ATAN (X)	LINE=X	RUN
CHR$ (X)	LIST, LISTX, LIST X, Y	SAVE 'FILENAME'
CLOSE FILE	LOAD 'FILENAME'	SCRATCH FILE
COMMAND	LOG X	SGN (X)
CONT	MID$ (A$, X, Y)	SIN (X)
COS (X)	MON	SQR (X)
DATA	NEW	STOP
DEF FNA(X)	ON X GOTO/GOSUB N	STR$ (X)
DIGITS=X	OPEN FILE	STRING=X
DIM A(N)	PEEK (X)	TAB (X)
END	POKE (X, Y)	TAN
EXP (X)	PORT=N	TLOAD
FILE STATUS	POS	TPEND
FOR – NEXT – STEP	PRINT, P.	TRACE ON OR OFF
GOSUB N	READ FILE	TSAVE
GOTO N	READ X	VAL (X$)
IF EXP1 THEN EXP2	REM	WRITE FILE
INPUT	RESTORE	
INT (X)	RESTORE FILE	

SE-1 EDITOR AND SA-1 ASSEMBLER

The SE—1 Text Editing System is both line oriented and content oriented in that specific lines can be referenced by a particular line number, an offset amount or by a string of characters contained within the line. Such commands as PRINT, INSERT, DELETE, FIND, REPLACE and VERIFY are included. The current line pointer always points to the beginning of a line. There is automatic line numbering, and the line numbers may be turned on or off as desired. Pointer movers include TOP, BOTTOM and NEXT. Other features are TAB column set and character definition, OVERLAY, APPEND, HEADER and block MOVE or COPY. An extensive CHANGE command allows one to change any or all specific occurences of one string into another. ZONES may be set to allow column restriction of all string searches and replacements. Multiple commands per line are permitted, and most commands are global in that they can operate over the entire part of the file that is contained in memory. The editor edits files from the BFD—68 disk system. The NEW command allows editing files from the disk that are larger than the available RAM memory space. Thus, the size of the edited file is restricted only by the storage capacity of the disk.

SA—1 is an **assembler** using Motorola standard mnemonics for the 6800 microprocessor designed to operate with the Smoke Signal Broadcasting's Disk Operating System.

SA—1 reads input disk source files created by the companion SE—1 text editor and generates formatted program listings and object files for use on the BFD—68 system.

SA—1 supports the following directives:

FCC	form constant characters
FCB	form constant byte
FDB	form double byte
SPC	space up output listing
OPT	specify assembler option
PAG	eject page on listing
ORG	specify new object code location
EQU	assign a value to a symbol
END	end of source program
MON	same as END
NAM	specify name of program
TTL	same as NAM
RMB	reserves memory byte

The options supported by the OPT directive are:

SYM	print sorted symbol table after listing
NOS	do not print symbol table
GEN	print all code generated by FCB, FDB, or FCC
NOG	print only one line of code for FCB, FDB, or FCC
LIS	print the assembly listing on pass two
NOL	do not print the assembled listed
PAG	enable page formatting and numbering
NOP	disable page formatting and numbering
TAP	enable the production of MIKBUG object tape format
NOT	disable the production fo MIKBUG formatted object code

BASIC COMPILER

The BASIC compiler was designed to be a programming tool in the building of high-performance process control programs and production business applications.

Some of the BASIC compiler's features are:

1) Faster execution since syntax analysis of the line is not performed each time the line is executed. Also, automatic integer optimization on arithemitic, FOR/NEXT loops and subscripting gives an added boost to speed.

2) More power in the runtime package since no room is needed for statement analysis, program editing and listing. This leaves more room for string operations, floating point, file I/O, formatted output and more.

3) A wider variety of facilities are made possible by the compiler: such as nested conditions, IF-THEN-ELSE and others.

4) Decimal floating point for business applications. Accuracy to a minimum of 9 digits; dollar values up to $99,999,999.99.

5) PRINT USING for formatted output.

6) Multicharacter variable names which simplify program coding and maintainence.

7) Single and double-dimensioned numeric arrays.

8) Character strings and string operations (substring, length, concatenation).

9) Runtime error diagnostics by line number.

10) Compile time error diagnostics point to actual error.

11) Assembly language interface via "CALL" statement.

12) File I/O to ASCII and binary files.

13) Data initialization facility.

SOFTWARE DYNAMICS COMPILER BASIC

STATEMENT

PRINT	ON ERROR GOTO	INPUT $
PRINT USING	ERROR	READ $ (BINARY)
FORMAT	REM (OR "!")	WRITE $ (BINARY)
LET	DEF	RESTORE $
INPUT	END	CHAIN
GOTO	OPEN	CALL
IF-THEN-ELSE	CREATE	DEBUG
FOR/NEXT	CLOSE	DIM
GOSUB/RETURN	DELETE	POKE
GOSUB POP	RENAME	PROGRAM ORIGIN
ON GOTO	PRINT $	DATA ORIGIN
ON GOSUB	PRINT $ USING	

BASIC COMPILER (CONT.)

FUNCTIONS

PI
COS
ATN
EXP
INT
SGN
ELN (ERROR LINE $)
VAL (OF STRING)
PEEK
NOT (IF COND INVERT)
MID$
RIGHT$
TIME$
NUMF$ (FORMATTED CONVERSION)
SWITCHES$
SIN
TAN
LOG
SQR
ABS
ERR (ERROR $)
LEN (OF STRING)
COM (LOGICAL COMPLEMENT)
EOF (END FILE TEST)
FIND (STRING IN STRING)
LEFT$
DATE$
NUM$ (UNFORMATTED CONVERSON)
HEX$ (HEX CONVERSION)

DATA TYPES

9 DIGIT FLOATING POINT
16 BIT POSITIVE INTEGERS
HEX NUMBERS
CHARACTER STRINGS TO
65534 CHARACTERS
NUMERIC VECTORS
NUMERIC ARRAYS
BYTE VECTORS

OPERATORS

+ - * / ^
& (AND)
! (OR)
XOR
** (SHIFT)
– (NEGATE)
CAT (STRING CONCATENATION)
[ ] (SUBSTRINGS)

FORMATTED OUTPUT

MONEY FORMAT – FLOATING DOLLAR / TRAILING MINUS
EXPONENTIAL FORMAT
FORMATTED NUMBERS AVAILABLE AS STRINGS (NUMF$)

SIZE: (IN BYTES)

COMPILER REQUIRES 16K
RUNTIME PACKAGE 10K (REQUIRES I/O PACKAGE)
TYPICAL I/O PACKAGE: 2K
16K MACHINE RUNS 225 LINE BASIC PROGRAM
32K MACHINE RUNS 1100 LINE BASIC PROGRAM

TP-1 TEXT PROCESSING SYSTEM

The SSB Text Processing System is by far the most powerful text formatter available to the micro user. Over 50 commands are provided for easy paging, margin setting, and spacing. Right, left, right and left, and center justification modes are all handled. The SSB Text Processor is actually a formatting language which allows the creation of macros including variables. All of these features allow for very efficient footnote handling, special document preparation, and form letters.

Other features supported include page numbering (either Arabic or Roman Numerals), complete page size control (line length, page length, top, bottom, left and right margins, etc.), tabs, conditional formatting control, exact title placing, contiguous space and text control, plus much, much more.

The TP–1 Text Processor in conjunction with the SE–1 Text Editor will give your micro the powers of the best text processing system available.

SOFTWARE DESCRIPTIONS
TD-1 TRACE/DISASSEMBLER

TD—1 provides a means of program debugging for 6800 users by providing interactive tracing and disassembly capabilities.

The TRACE mode allows the programmer to control the execution of the program under test so that the processor's internal registers and memory may be examined on an instruction-by-instruction basis. In this manner, the programmer may view intermediate results during program execution in order to be able to determine where the program is not functioning properly.

The DISASSEMBLY mode converts the harder to remember machine code back to the more easily read mnemonics so that the programmer can look though memory as if looking at an assembly listing.

In both trace and disassembly modes, when an instruction is listed, along with the mnemonic is the hex code for the opcode and program counter. The opcode field is displayed in HEX (and ASCII if it is a printable character).

In trace mode, all registers are printed along with the disassembly of the next instruction to be executed. The contents of the register or memory may be changed at any time. A subroutine may be executed with the trace printout suppressed. The test program can be run up to a specified address when it is desired to execute many instructions at one time. Execution of the current instruction maybe suppressed when it is desired to skip the execution of that instruction. This is particularly useful for skipping over branch instructions when the branch normally would be taken.

SG-1 SOURCE GENERATOR

The SOURCE GENERATOR (SOURCE GEN) is a program for the disassembly of object code into source code which may then be directly assembled or edited.

The output of SOURCE GEN can be directed to tape or disk in one of two forms: either SWTPCo's co-resident assembler format, or the Smoke Signal Broadcasting's Text Editing system format. SOURCE GEN, after the disassembly, will report on the terminal the number of bytes in the source code file, the number of external labels, the number of local labels, and the number of variables in order to facilitate computing the amount of memory space necessary to assemble the source code generated.

Significant features:

Labels referencing data are flagged with the letter "D".

Labels referencing program jumps or branches are flagged by the letter "L".

Labels referencing locations external to the region being disassembled are flagged with the letter "E".

Labels referencing variables are flagged with the letter "V".

The operator can tell SG—1 where to expect known data (constants) or variables to prevent confusion of data with instructions.

The source code generated can be output to a disk file, the terminal, cassette tape, or to a printer.

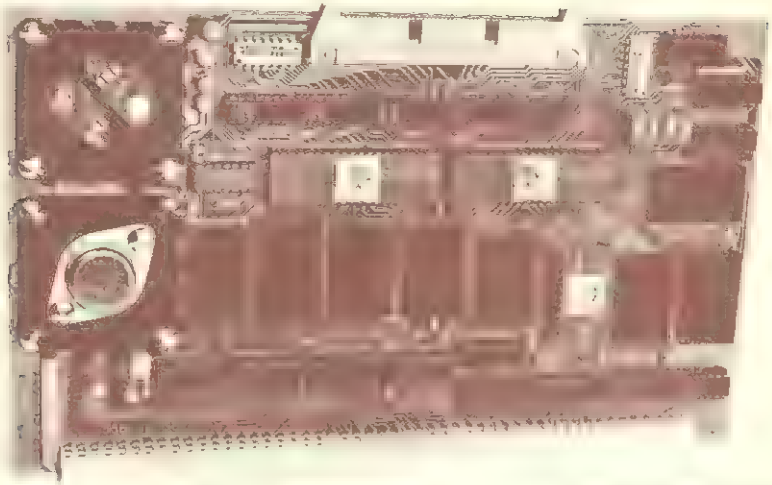
SMARTBUG

SMARTBUG is a 1024 byte monitor program which may be used in most systems using the Motorola 6800 microprocessor. It was designed primarily to replace the MIKBUG ROM used in many systems including the Southwest Technical Products 6800 microcomputer. It can also be used to replace the SWTBUG ROM for owners of systems using that monitor who wish to upgrade their systems. SMARTBUG is the only monitor that is really MIKBUG compatible. Not only were all the important MIKBUG entry locations maintained, but most of the relatively obscure ones were maintained as well. More importantly, the RAM temporary storage locations were also maintained at the MIKBUG locations. SMARTBUG contains many enhancements not contained in MIKBUG. Perhaps, the most important one is the trace feature contained in SMARTBUG. TRACE allows the user to single step through a program, examine the registers if desired. Program debugging proceeds very quickly when the TRACE feature is used in conjunction with BREAKPOINT.

SMARTBUG COMMANDS

"A" Displays contents of A register and allows changes if desired.
"B" Displays contents of B register and allows changes if desired.
"C" Displays contents of Condition Code Register and allows changes if desired.
"D" Jumps to BFD—68 disk operating system when system has previously been loaded into memory.
"E" Turns ECHO on. Echoes all characters inputted through INEEE input routine.
"G" Go to location contained in A048 and A049.
"H" HARDCOPY turns on flag which sends output from OUTEEE to a jump location where the user can install a routine to print on a hardcopy printer to direct the output to either the CRT, the printer or both.
"I" INSERT a byte into a range of memory. Useful for clearing memory or setting to 3F.
"J" Jump to program starting at location entered after "J".
"K" Insert breakpoint and execute program until breakpoint encountered. Breakpoint automatically cleared.
"L" LOAD from cassette tape.
"M" Examine and change MEMORY.
"N" NO-ECHO allows entry of characters through INEEE without echoing the characters out through OUTEEE.
"P" PUNCH outputs to cassette tape.
"Q" QUICKSTART boots in the BFD—68 operating system.
"R" Displays contents of all registers.
"T" TRACE provides a means to single step through a user program.
"X" Displays contents of Index register and allows changes if desired.
"4" Jumps to E400 where user may install additional monitor commands.

P-38 EPROM BOARD



Storage Capacity: 8192 bytes on 2708 EPROMs
Input Voltage: 7.5 volts min., 10 volts max.
14 volts min., 20 volts max.
−7 volts min., −20 volts max.

Shipping Weight: 2 lbs.
Size: 5-½" x 9"

The P–38 is switch selectable to any 8K starting address (Hex 0000, 2000, 4000 . . . E000). Using the P–38 at E000, allows you to replace the MIKBUG or SWTBUG monitor with SMARTBUG or your own monitor on 2708. The 2708 that occupies E000 through E3FF may also be decoded (switch selectable) at FC00 through FFFF so that a complete monitor, including restart vectors may be contained on one 2708 and still be MIKBUG compatible. Also, there is a socket on the board that may be jumpered for MIKBUG, MINIBUG II or SWTBUG when using the P–38 at E000 through FFFF. When using one of these monitors with the P–38, the memory space between E400 and FBFF is fully decoded and available for programs stored on 2708's. The P–38 requires 3 input voltages and its current requirements are dependent on the number of 2708's you actually use in your system. When used in a SWTPC 6800 system, the use of the PS–1 power supply modification kit is recommended.

P-38-I EPROM BOARD WITH INTERFACE

The P–38–I contains all the features of the basic P–38 plus an interface to the POP–1 EPROM programmer and the Oliver Paper Tape Reader. Software is provided for reading paper tape.

Shipping Weight: 2 lbs.

PS-1 POWER SUPPLY KIT

The PS–1 provides plus and minus 16 volts at up to 2 amps. This provides power for up to five fully loaded P–38 boards. Additionally, when installed with a SWTPC 6800, it allows a wiring change to be made to the SWTPC 6800 8 volt supply that will increase its output by one volt. This is desireable to insure adaquate margins for the on board voltage regulators when used in systems containing more than 16K of memory or where the incoming line voltage fluctuates more than usual.

Shipping Weight: 3 lbs.

M-16A

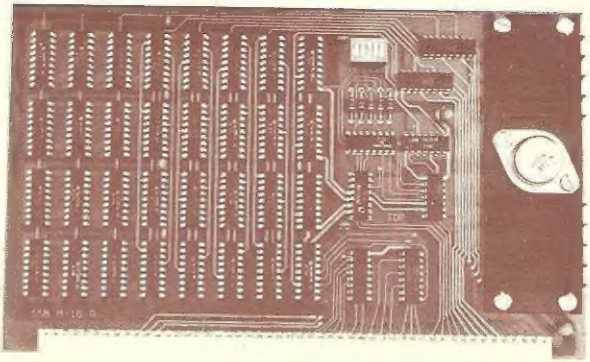
Storage Capacity:
16384 bytes

Access Time:
250 nsec typical, 450 max.

Input Voltage:
7.5 volts min., 10 volts max.

Input Current:
1.6 amps typical

Shipping Weight: 2 lbs.



The M–16A is a STATIC random access memory system with a total storage capacity of 16384 words of 8 bits each. The M–16A is contained on a 5½ by 9 inch circuit board and is plug compatible with any computer system using the SS–50 bus standard. The starting address of the 16K memory block occupied by the M–16A is switch selectable to any 4K starting address. (Hex starting addresses 0000, 1000, 2000 . . . F000). A hardware write protect switch is also included. The M–16A uses 4K by 1 STATIC memory chips as the system's storage elements. These chips use the same proven reliable technology as the familiar 2102 but store 4 times as much in only 12% more space. STATIC memory has a relatively constant current demand and does not produce the large transient current spikes prevalent in dynamic memory chips. Also, STATIC memory will accomodate all DMA (Direct Memory Access) schemes. DMA is used in some disk systems and video boards as well as certain multi-user applications. Thus, with STATIC memory, you do not have to worry about whether or not it will be compatible with future DMA applications or whether the current spikes produced by dynamic memory will glitch your system. The typical access time of the M–16A is fast enough to work with a 6800 based computer operating at 2 MHz. Over the entire temperature range of 0° to 70° and under worst-case conditions, the M–16A will operate with a computer running at 1.25 MHz.

POP-1

Shipping Weight: 4 lbs.
Size: 7"W x 5¾"D x 3½"H

The POP–1 is a 2708 EPROM programmer that is contained in a separate cabinet outside the 6800 and connected by ribbon cable to the P–38–I. The POP–1 uses a separate self-contained power supply for the programming voltage required which easily provides more than enough power to program 2708's from any manufacturer. Complete software is provided on cassette to duplicate an existing 2708 (making changes if you wish) or to transfer a block of RAM to EPROM. Both source and object code are provided. An adaptive programming technique is used that allows most 2708's to be programmed within 15 seconds.

PRICE LIST

ABFD–68	Single Drive Disk System less cabinet and power supply. Includes DOS–68 disk operating system and DFB–68 disk file basic . .	$ 649.00
BFD–68	Complete single drive disk system including DOS–68 and DFB–68. Controller, Cabinet and power supply are capable of accomodating a total of 3 drives	$ 795.00
SA–400	Additional disk drive for the BFD–68. . . .	$ 355.00
BFD–68–2	Complete, assembled dual drive disk system .	$1139.00
BFD–68–3	Complete, assembled triple drive system . .	$1479.00
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